National Aeronautics and Space Administration

John C. Stennis Space Center

LAGNIAPPE

Volume 26 Issue 10 | www.ssc.nasa.gov | October 2003

Return to Flight

Return to Flight Plan is specific to Shuttle

The latest version of the Return to Flight Implementation Plan was released Oct. 15.

The plan was renamed NASA's Implementation Plan for Space Shuttle Return to Flight, to recognize that, with the International Space Station Program, NASA is still flying – and this plan is to safely return the Shuttles to flight. The plan is online at *www.nasa.gov*.

New cameras to monitor Shuttle launches

Following recommendations by the Columbia Accident Investigation Board, NASA plans to double the number of cameras used during launch to get a clearer picture of the Shuttle on its way into space.

Dozens of cameras, from on the pad, to up and down the coast of Florida, will view every angle of the Shuttle during launch.

Teams at NASA centers across the country will then examine the high-resolution film.

Columbia Recovery Office relocated

NASA has moved the Columbia Recovery Office (CRO) to Kennedy Space Center (KSC), Fla. By moving the CRO from Johnson Space Center, Houston, NASA can store and coordinate Shuttle debris at one location.

The CRO opened April 28, 2003, and will remain operational as long as call volume warrants.

"What will I do today to help return to safe flight?"

Sean O'Keefe
NASA Administrator

Kostelnik, Parsons present Return to Flight update

Deputy Associate Administrator for International Space Station and Space Shuttle Programs Michael Kostelnik, along with Space Shuttle Program Manager Bill Parsons, addresses SSC employees Oct. 8 during a Return to Flight briefing.

NASA's Michael Kostelnik, deputy associate administrator for International Space Station and Space Shuttle Programs, and Bill Parsons, Space Shuttle program manager and former director of NASA Stennis Space Center (SSC), briefed SSC employees Oct. 8 on the Space Shuttle's Return to Flight status.

SSC Interim Center Director Michael Rudolphi and David Geiger, site director for The Boeing Co., also participated in the discussion.

They briefed SSC employees on the Columbia Accident Investigation Board (CAIB) findings about the loss of the STS-107 and NASA's efforts to return the Space Shuttle to flight.

"We've got to move forward," Kostelnik said. "The most difficult part of the past year is coming to a close. The time of opportunity and challenge is

See UPDATE, Page 11

Stennis Space Center, state of Louisiana extend partnerships

Louisiana's Gov. Murphy J. "Mike" Foster recently welcomed a group of NASA officials from Stennis Space Center (SSC) to the Louisiana Governor's Mansion in Baton Rouge. During the meeting, Gov. Foster and SSC Interim Center Director Michael Rudolphi signed a Memorandum of Understanding (MOU) between SSC and the state of Louisiana to promote technology transfer partnerships.

Paul Pastorek, NASA general counsel and graduate of Loyola University in New Orleans, also attended the meeting and witnessed the signing.

The MOU renews the strong ties between the state

See TIES, Page 11

NASA Stennis Space Center (SSC) Interim Center Director Michael Rudolphi (second from right) presents Louisiana Gov. Mike Foster (second from left) an image from space of the area that comprised the Louisiana Purchase. Also pictured are Charles D'Agostino (left), executive director of the Louisiana Business and Technology Center, and Don Hutchison, secretary of the Louisiana Department of Economic Development.

NASA celebrates 45th anniversary

Established Oct. 1, 1958, NASA quickly built on the success of its predecessor agency, the National Advisory Committee for Aeronautics.

Since then, NASA has pushed the boundaries of exploration from Earth to the Moon, to the outer reaches of our solar system, and to the edge of the universe.

NASA's first 45 years are just the beginning of new explorations and discoveries, leading to the fulfillment of NASA's mission:

- *To understand and protect our home planet.*
- *To explore the universe and search for life.*
- *And to inspire the next generation of explorers ... as only NASA can.*

From the desk of
Michael Rudolphi
Stennis Space Center Interim Director

During the past few months, I've used this column to share my thoughts on several issues. This month I would like to pass along what I think are six pretty good ideas for making NASA, Stennis and ourselves better.

Safety

NASA is committed to providing a physically, emotionally and professionally safe environment for our people. These commitments are essential elements in everything we do.

A physically safe work environment is providing a place where employees can safely conduct their business, whether it's testing an engine or typing a letter. An emotionally safe environment is one where employees show respect for each other and are mindful of our fellow employees' needs. For example, last month I said some people are better at coping with stress than others, and we should keep an eye on those around us to ensure they are kept safe. That is providing emotional safety. In a professionally safe environment, employees feel comfortable saying or doing what they believe is right without fear of retribution.

Communication

The senior management at Stennis and throughout NASA is interested in hearing your thoughts, ideas and opinions on making NASA a better organization. I encourage you to share your ideas with your colleagues and supervisor(s). If you feel your supervisor has not responded in a timely manner, please feel free to contact me directly.

Engage

Don't just wait for things to happen – actively become an integral part of the center. NASA and Stennis are world-class organizations, but when all employees become engaged and are active participants in everything we do, we can only get better.

Make Yourself Better

Making yourself better also makes NASA better. Continue to learn and develop. As the author George Elliot once said, "It is never too late to be what you might have been."

Leave It Better Than You Found It

Leaving an area better than you found it can be contagious. When people around see that you care enough to pick up after yourself, they will be encouraged to do the same.

Do It Now

Recent studies indicate that almost everyone procrastinates to some extent. However, those same studies show it is a chronic problem for 20 percent of Americans. Procrastination makes us feel weak or indecisive and, later on, guilty for not doing what we should have done.

These six ideas are simple concepts. But when taken to heart, they can go a long way in helping to better both NASA and ourselves.

Carstens named interim ESA director; Boudreaux deputy

David J. Carstens has been named interim director of the Earth Science Applications (ESA) Directorate at NASA Stennis Space Center (SSC). Carstens previously served as manager of SSC's Office of External Affairs. The Port Clinton, Ohio, native has served as deputy for SSC's Center Operations. Prior to his transfer to SSC, Carstens led the Science and Engineering Directorate and the Transportation Division at Marshall Space Flight Center (MSFC) in Huntsville, Ala.

Mark E. Boudreaux is ESA's acting deputy director. The Thibodaux, La., native spent the past 13 years at MSFC, and served as a mission manager for Spacelab's 1996 flight and a deputy manager for its 1994 flight. Most recently, he was deputy manager and Optical Design, Analysis, Test and Fabrication group lead for MSFC's

Carstens

Boudreaux

Space Optics Manufacturing Technology Center. Boudreaux has performed launch integration, research mission integration, mission operations or other support for more than 12 Shuttle flights.

Carstens and Boudreaux will lead the staff to fulfill its mission of managing NASA's Earth Science Applications.

NEWSCLIPS

NASA research propels development of new glass

A new glass, developed with the help of a unique NASA levitator facility, is available for numerous commercial applications including lasers and optical communications.

REAl Glass – made from Rare Earth oxides, Aluminum oxide and small amounts of silicon dioxide – has unique properties that were identified using containerless processing techniques and the Electrostatic Levitator at NASA's Marshall Space Flight Center in Huntsville, Ala.

"This shows how basic NASA research can lead to innovative materials and new products that can benefit everybody," said Dr. Michael Wargo, in NASA's Office of Biological and Physical Research in Washington.

Satellite's lasers measure Earth's vertical dimensions

NASA's Ice, Cloud and land Elevation Satellite (ICESat) is measuring the Earth's polar ice sheets, clouds, mountains and forests with the second of its three lasers.

"The first set of laser measurements is revealing features of the polar ice sheets with details never seen before, and is detecting dust storms, cloud heights, tree heights and smoke from forest fires in new and exciting ways," said Jay Zwally, ICESat Project Scientist at NASA's Goddard Space Flight Center, Greenbelt, Md.

The principal mission of ICESat is to measure the surface elevation of the large ice sheets covering Antarctica and Greenland. Measurements of elevation change over time will show whether the ice sheets are melting or growing.

NASA technology reduces smokestack emissions

Thanks to NASA, a new method for reducing smokestack emissions of toxic formaldehyde and carbon monoxide may soon be in use throughout industry.

Created for satellite lasers to measure the chemical makeup of the Earth's atmosphere, the smokestack application of Low-Temperature Oxidation Catalysts (LTOC) comes from a collection of technologies that enables the destruction of pollutant gases.

Developed at NASA's Langley Research Center in Hampton, Va., LTOC technology is expected to reduce formaldehyde and carbon monoxide concentrations in smokestack emissions by approximately 85 to 95 percent.

New crew assumes Space Station duty

The International Space Station's (ISS) newest crew, Expedition 8, launched in a Russian Soyuz craft from Baikonur Cosmodome in Kazakhstan, Russia, on Saturday, Oct 18.

Commander Mike Foale and Flight Engineer Alexander Kaleri officially boarded the ISS when hatches between it and the Soyuz spacecraft swung open Monday, Oct. 20, at 5:19 a.m. CDT. They were joined by visiting researcher, European Space Agency (ESA) astronaut Pedro Duque.

Greeting them on the station were Expedition 7 Commander Yuri Malenchenko and NASA ISS Science Officer Ed Lu, who were 177 days into their six months in space. The two crews were to conduct eight days of joint operations and research before Expedition 7 and Duque return home Oct. 27.

Among those observing the arrival of Expedition 8 to the station were NASA Associate Administrator for Space Flight William Readdy and International Space Station Program Manager William Gerstenmaier. Both delivered best wishes for the mission to the five station crew members.

The plan for the two crews included handover activities and scientific experiments carried out by Duque for Spanish and other European scientists under a commercial contract between ESA and the Russian Aviation and Space Agency.

The new crewmembers received a safety briefing and installed a seat liner for Duque in the Soyuz, earmarked for landing Oct. 27.

Expedition 8 was to officially take control of Station operations Oct. 27 when Malenchenko, Lu and Duque were scheduled to close the hatches between their returning Soyuz and the station. Foale and Kaleri will remain on board until late April 2004.

Cold-flow test of kerosene-fuel engine completed; hot-fire testing under way

NASA Stennis Space Center engineers conducted a successful cold-flow test of an RS-84 engine component Sept. 24. The RS-84 is a reusable engine fueled by rocket propellant – a special blend of kerosene – designed to power future flight vehicles. Liquid oxygen was blown through the RS-84 subscale preburner to characterize the test facility's performance and the hardware's resistance. Engineers are now moving into the next phase, hot-fire testing, which is expected to continue into February 2004. The RS-84 engine prototype, developed by the Rocketdyne Propulsion and Power division of the Boeing Company of Canoga Park, Calif., is one of two competing Rocket Engine Prototype technologies – a key element of NASA's Next Generation Launch Technology program.

Hydrogen-fuel engine component tests near completion

Gaseous hydrogen is burned off at the E1 Test Stand the night of Oct. 7 during a cold-flow test of the fuel turbopump of the Integrated Powerhead Demonstrator (IPD) at NASA Stennis Space Center (SSC). The gaseous hydrogen spins the pump's turbine during the test, which was conducted to verify the pump's performance. Engineers plan one more test before sending the pump to The Boeing Co. for inspection. It will then be returned to SSC for engine system assembly. The IPD is the first reusable hydrogen-fueled advanced engine in development since the Space Shuttle Main Engine.

Stennis employees honored for Space Flight Awareness

Five Space Flight Awareness (SFA) STS-114 honorees from NASA Stennis Space Center attended a lunch at Michoud Assembly Facility on Sept. 30, where the STS-114 crew presented them SFA Honoree certificates. The honorees will attend a Space Shuttle launch after return to flight. Front row, from left, are LaSonya Merrill, Lockheed Martin Space Operations, Stennis Programs; Nancy Casey, Boeing Rocketdyne Propulsion and Power; David Walters, NASA; and Patricia Smith, Boeing Rocketdyne Propulsion and Power. Back row, from left, are STS-114 crewmembers Soichi Noguchi and James Kelley; honoree Allen Forsman, Mississippi Space Services; and STS-114 crewmembers Stephen Robinson and Eileen Collins.

Bruce Davis, aerospace technologist, Earth Sciences Remote Sensing, and Sherman Wilson, information security specialist, were selected to attend the SFA 40th Anniversary event at the Smithsonian National Air and Space Museum in Washington, D.C., on Sept. 25.

Six small business research projects chosen for negotiation by NASA

NASA has selected 145 research proposals for negotiation of Phase 2 contract awards for its 2002 Small Business Innovation Research (SBIR) program, including six from NASA'S Office of Technology Development and Transfer at Stennis Space Center (SSC).

The selected projects will be conducted by 119 small, high-technology firms located in 29 states. The awards have a total value of approximately $86.5 million.

The goals of this NASA program are to stimulate technological innovation and increase the use of small business – including women-owned and disadvantaged firms – in meeting federal research and development needs.

A total of 251 proposals were submitted by SBIR contractors completing Phase 1 projects.

The companies and projects selected for negotiation of Phase 2 contracts through SSC's Office of Technology Development and Transfer are:

- Combustion Research and Flow Technology Inc., Pipersville, Penn., advanced flow analyses in complex feed systems.
- Intelligent Automation Inc., Rockville, Md., ultra-wide band water sensor.
- Invocon Inc., Conroe, Texas, wireless ethernet-based data acquisition system.
- NVE Corp., Eden Prairie, Minn., miniature intelligent sensor electronics.
- NVision Solutions Inc., Stennis Space Center, Miss., BasinTools Module 1, online remote sensing interface.
- SMH Consulting, Alexandria, Va., automated, universal software for cloud and cloud-shadow detection in remote sensing data.

Funding for Phase 2 contracts could be up to $600,000 for a two-year performance period.

The NASA SBIR program manager is located at the Goddard Space Flight Center, Greenbelt, Md., with executive oversight by NASA's Office of Aerospace Technology, NASA Headquarters, Washington, D.C.

Cottrell

Gordon

NASA employees are Women of Achievement

Dinna LeDuff Cottrell and Jenette B. Gordon, NASA employees at Stennis Space Center (SSC), were recognized as Women of Achievement at the 2003 Women of Color Research Sciences and Technology Awards Conference held Sept. 12 and 13 in Nashville, Tenn.

The conference was sponsored and presented by Career Communications Group Inc., the Baltimore, Md.-based publisher of U.S. Black Engineer & Information Technology.

Cottrell, a resident of Covington, La., and a NASA employee for 17 years, is a data systems aerospace technologist in the Center Operations Directorate's Information Management Division at SSC.

Gordon, a resident of Slidell, La., and a NASA employee for 10 years, is an aerospace technologist, aerospace environmental control techniques, in the Center Operations Directorate's Environmental Management Staff at SSC.

Rudolphi receives Outstanding Leadership Award

Stennis Space Center Interim Center Director Michael Rudolphi recently received NASA's Outstanding Leadership Award from NASA Administrator Sean O'Keefe. Rudolphi earned the award for his outstanding leadership and dedication to the nation's space program and for leading the team efforts supporting the Space Shuttle Columbia recovery. The award was presented during the Space Flight Awareness (SFA) 40th Anniversary event held at the Smithsonian National Air and Space Museum in Washington, D.C., on Sept. 25.

International Festival celebrates diversity

The Stennis Space Center (SSC) Association for Cultural Awareness (ACA), comprised of members from government and contractor organizations at the center, sponsored an annual celebration of SSC's diversity Oct. 23. The theme for this year's celebration was "Embracing One World, Many Cultures."

"The ACA members worked for many months on the annual SSC International Festival, planning an event to celebrate all cultures and provide everyone the opportunity to learn more about cultures around the world and to share knowledge of their own culture," said Jean Rhodes, NASA equal opportunity officer.

All SSC employees were invited to take part in the festival, which included outdoor entertainment with international cultural music and dancing as well as indoor cultural displays and ethnic food sampling. Employees and people from the community shared their ethnic backgrounds and displayed artifacts and educational materials from many different countries.

The festival showcased cultural exhibits from Pakistan, North India, China, Russia, Asia and Pacific Islands, Peru, Puerto Rico, Bolivia, Ecuador, Honduras, Spain, Canary Islands, other Hispanic and Latin American countries and Native Americans.

Entertainers and performers represented Africa, Ireland, Scotland, Canary Islands, Macedonia, Bulgaria, Turkey and Native Americans, creating a memorable cultural experience.

Above, Delia Hernandez (left) of Slidell, La., tells NASA Stennis Space Center employees Veronica Lee and Jamie Strahan, both of Mason Technologies, the history of her native costume at the annual International Festival. Hernandez, originally from Mexico, wears a *huichol* dress and medicine man's sombrero. At left, Kirsten Piernas (left) and Macey Wallace, students at the Stennis Child Care Development Center, demonstrate traditional dances from Africa and Mexico.

Combined Federal Campaign-United Way kicks off at Stennis

The Southern Mississippi Combined Federal Campaign (CFC)-United Way, chaired by Stennis Space Center (SSC) Interim Center Director Michael Rudolphi, kicked off at SSC Oct. 16. The Southern Mississippi CFC is the largest in the state and represents 25,000 federal employees in 14 South Mississippi counties. Organizers hope to raise $860,000 for 1,038 local and national causes. Employees visited charity booths to earn points toward free food, played Shuttle Putt-Putt and basketball, did the "Geologic Spin," voted for SSC's ugliest tie,challenged each other to "Battlin' Buoys," and dunked their favorite people.

Above, SSC employees gather in the 'midway' of the Combined Federal Campaign (CFC) celebration in front of Building 1100 on Oct. 16 to mark the kickoff of the joint CFC-United Way fund-raising effort.
At left, David Throckmorton, assistant center director at SSC, watches a near-miss from his perch inside the dunking booth during the kickoff of the CFC. The dunking booth was one of many activities available to generate enthusiasm for the annual fund drive.

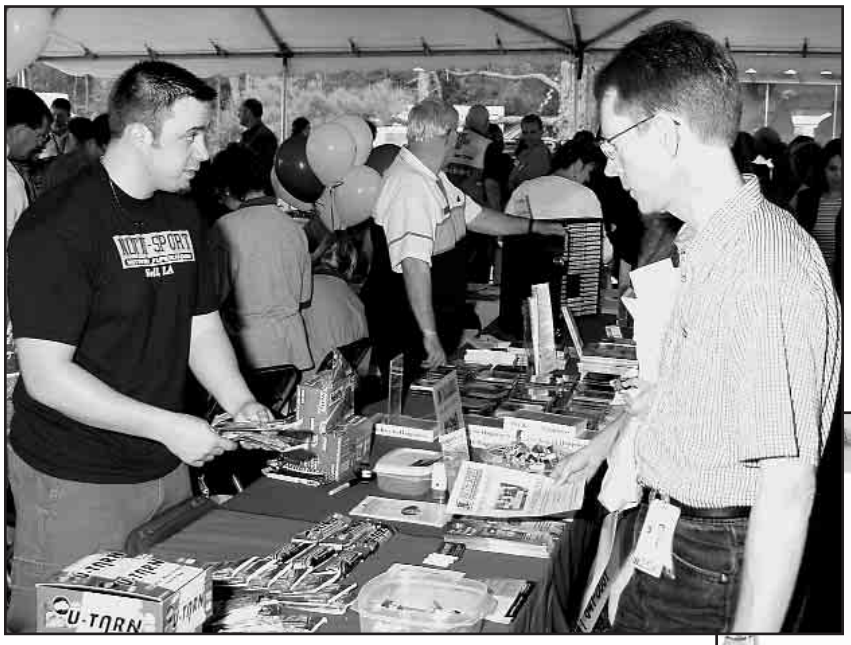
Safety Day emphasizes commitment to risk-free work environment

Nearly 1,500 employees of NASA and on-site contractors at Stennis Space Center (SSC) attended annual Safety Day activities Oct. 8.

"We focused on promoting a broad safety message," said NASA's Nick Cenci, who organized the event. "We had everything from vehicle safety and fire safety, down to personal health and on-the-job safety."

Safety Day featured health and safety displays, speakers and a variety of vendors, all to reaffirm NASA's commitment of ensuring a safe working environment. "It's important to allow time out of our schedules to devote time to safety," Cenci said.

The Safety Olympics, a new feature this year, included a tent where workers tested their safety knowledge in areas like fall protection and ergonomics. Cenci called the new event an "excellent" addition, and said the 200 T-shirts reserved for Olympic participants were given away in just over an hour.



At left, Brian Hey, NASA Safety and Occupational Health specialist (right), visits the Nutrisport exhibit manned by Ryan White from Slidell, La., during the Safety Day festivities. Below, Scott Hargrove of Global Medical Center in Slidell demonstrates massage techniques to Sheila Comeaux of Mississippi Space Services.

Health and safety representatives from across South Mississippi and Louisiana provided information on other subjects ranging from cancer and cardiac education, to massage therapy.

SSC employees were also offered screenings for cholesterol, glucose and blood pressure levels, as well as audiology and glaucoma tests.

Keynote speakers Dr. Paul Mancusi of the Center for Organizational Excellence, and Paul Esposito of STAR Consultants, each addressed ways to prevent or counteract hazards in the workplace and in employees' personal lives.

Firefighters from Pearl River and Hancock counties demonstrated proper fire evacuation techniques using a "smoke trailer" that simulates a burning building.

Mississippi Power Co. conducted an electrical safety lecture, while the Mississippi Highway Patrol, Hancock County Sheriff's Dept., Mississippi Game and Fish Commission and the American Red Cross provided additional safety information.

Workshops like "Healing Powers of the Mind" and "Herbs and Cleansing," and a yoga class were also available.

Above, NASA Education Officer Dewey Herring (seated), undergoes a blood pressure screening from the staff of Crosby Memorial Hospital in Picayune. Right, NASA Propulsion Test Directorate engineer Harry Ryan picks up information from the National Kidney Foundation.

Bob Poncet, lead, Program Control Office, checks his glucose level with help from the staff of Crosby Memorial Hospital in Picayune.

Silver Snoopy Awards recognize excellence in enhancing space fight

Ten employees were honored Oct. 8 with the Astronaut Corps' own personal achievem ent award, the "Silver Snoopy." Among the recipients were NASA's Rebecca Deschamp and Gregory C. Carmouche.

Other Silver Snoopy recipients included Richard Malley and James Seal of Lockheed Martin Space Operations; Dr. Maurice Taquino, Daniel H. Gurneck and Louis Vance Hathcock, all of Mississippi Space Services; and Jonathan Clemens, Owen Brayson, and Gregory W. Byrd, all of The Boeing Co.

Each honoree received a silver pin flown on a Space Shuttle mission and a letter of commendation and certificate, both signed by NASA Astronaut Nicholas Patrick, who presented the awards.

Patrick, a mission specialist, is currently assigned to the Space Station Branch as the Crew Support Astronaut for the 8th International Space Station Expedition crew. He will serve in technical assignments until assigned to a space flight.

The Silver Snoopy Award recognizes individuals for professional dedication and outstanding efforts that greatly enhance the safety and success of human space flight missions.

NASA's Gregory C. Carmouche (left), and NASA astronaut Nicholas Patrick

NASA astronaut Nicholas Patrick (left), and NASA's Rebecca Deschamp

The Boeing Co.'s Owen Brayson (left), and NASA astronaut Nicholas Patrick

The Boeing Co.'s Gregory W. Byrd, (left), and NASA astronaut Nicholas Patrick

The Boeing Co.'s Jonathan Clemens (left), and NASA astronaut Nicholas Patrick

NASA astronaut Nicholas Patrick (left), and Mississippi Space Services' Daniel H. Gurneck

Mississippi Space Services' Louis Vance Hathcock (left), and NASA astronaut Nicholas Patrick

NASA astronaut Nicholas Patrick (left), and Lockheed Martin Space Operations' Richard Malley

NASA astronaut Nicholas Patrick (left), and Lockheed Martin Space Operations' James Seal

Mississippi Space Services' Dr. Maurice Taquino (left), and NASA astronaut Nicholas Patrick

Two new buildings dedicated at Stennis Space Center

Visualization Center

The dedication ceremony of the University of Southern Mississippi Center of Higher Learning (CHL) High-Performance Visualization Center at SSC was held Oct. 17. The center's RAVE II 3-D visualization system, available to both on- and off-site scientists, turns data into a fully immersive environment for the user. Cutting the ribbon are, from left, Rear Adm. Thomas Donaldson, commander of the Naval Meteorology and Oceanography Command; Jim Meredith, former director of the CHL; USM President Dr. Shelby Thames; Lt. Gov. Amy Tuck; Dr. Peter Ranelli, director of the CHL; Dewey Herring, chairman of the policy board for the CHL; and former Sen. Cecil Burge.

Marine Science Building

Officials cut the ribbon during dedication ceremonies of the George A. Knauer Marine Science Building on Oct. 17 at NASA Stennis Space Center (SSC). The $2.75 million facility, the first building at the test site funded by the state of Mississippi, houses six science labs, classrooms and office space for 40 faculty and staff. Pictured are, from left, Rear Adm. Thomas Donaldson, commander of the Naval Meteorology and Oceanography Command; SSC Assistant Director David Throckmorton; Dr. George A. Knauer, founder of the Center of Marine Science at the University of Southern Mississippi (USM); Lt. Gov. Amy Tuck; and USM President Dr. Shelby Thames.

Senior managers tour child center

Stennis Child Care Development Center (SCDC) Director Rose Pouriraji (center), escorted Stennis Space Center Interim Director Michael Rudolphi (behind Pouriraji) and senior staff on a tour of the SCDC recently. The SCDC, administered through the University of Southern Mississippi's contract with NASA, aims to provide a place where children can develop in an age-appropriate environment.

Stennis Fire Department receives new fire truck

Engine No. 3 was recently delivered to NASA Stennis Space Center (SSC) Fire Department. The combination rescue response vehicle-pumper unit is the department's first new truck since 1987. Because it has multiple functions, the truck will replace three others, according to Fire Chief Ted Clark. 'The one truck will become a rapid intervention response team, putting more manpower on the scene,' he said. The new truck was custom-designed by the 15 firefighters at SSC.

NASA scientist will help expose students to wetlands research

Dr. Marco Giardino, chief of the Applications Integration Division for NASA Stennis Space Center's Earth Science Applications Directorate, has been chosen by the JASON Project to be one of six host researchers for Disappearing Wetlands, which will run through the 2004-05 school year.

The JASON Project is a multi-disciplinary program that aims to spark students' imaginations and enhance classroom experiences by exploring the Earth. It exposes students to scientists who examine the planet's biological and geological development. The project takes its name from Jason of Greek mythology.

Giardino was chosen for Disappearing Wetlands because of his role in the Coast 2050 program, which is working to help restore 20,000 square miles of Louisiana wetlands over the next 50 years. Giardino uses NASA satellite imagery to identify threatened wetland archeological sites and provide data to the U.S. Army Corps of Engineers for evaluation.

The JASON Project chose to tell the Louisiana wetlands story for many reasons. Southern Louisiana is home to 40 percent of the coastal wetlands in the 48 contiguous states. Those wetlands serve as water purifiers and sources of biodiversity, and as buffers from Gulf of Mexico storm surges. They are home to thousands of species of marine life, mammals and birds, and are vital to the local tourism and fishing industries.

Through video, print and interactive online curriculum units, the students can literally look over researchers' shoulders as they work.

"I'm really looking forward to participating," Giardino said. "The whole thing is about the wetlands, so my research – using remote sensing to identify cultural sites – will fit right in. I'd like to make sure each JASON student understands that their individual effort to save the wetlands can bring about positive change."

Giardino will be featured in a curriculum unit that focuses on science, technology and society. The unit will illustrate how the interface of the three can help researchers better understand the complex wetlands system.

JASON Project coordinators described Giardino as a rare combination of scientist, historian and technologist, able to communicate the integration of the three on a level that children can understand. "He knows the topic and he's got a historical perspective that's really unique," said Ilana Schoenfeld, multimedia content manager for the JASON Project.

Caroline Joyce, JASON Project director, said Giardino's participation over the next year will help shape the development of the curriculum.

"This is where the NASA link is so great," Joyce said. "NASA has been and continues to be a very important partner to the JASON Project."

The JASON Project is the brainchild of Robert Ballard, the scientist and oceanographer who discovered the wreck of the RMS Titanic in 1986. Over the past 15 years, the JASON Project has taken more than 5 million teachers and students on field trips all over the world via satellite and the Internet. It allows fourth- through ninth-graders access to scientists, field sites, research methods and technology. Through video, print and interactive online curriculum units, the students can literally look over researchers' shoulders as they work.

NASA's Dr. Marco Giardino (left), interprets satellite imagery on the way to an archeological site near Lake Salvador, La., in November 2002. With him is his local guide, Michael Comardelle.

New employees welcomed at reception

New NASA employees at Stennis Space Center (SSC) were honored Oct. 9 with a reception hosted by SSC Interim Center Director Michael Rudolphi (front row, left). Among those honored were (from left), front row, Robert Magnuson, attorney, Office of Chief Counsel; Richard Mann, contract specialist, Business Management Operations Contracting Division; back row, Kelley Lee, Office of Human Resources and Development student trainee; Andrew Holguin, aerospace technologist, Center Operations Directorate; Public Affairs Officer Linda Theobald; Emmitte Lawshe, Center Operations Directorate student trainee; Wayne North, aerospace technologist, Propulsion Test Directorate (PTD); Cecile Saltzman, Program Integrations Office (PIO) program analyst; and Aubri Buchanan, PIO Technology Development and Transfer student trainee. Not pictured are PTD Director Miguel Rodriguez; Education Officer Dewey Herring; Gigi Hackford, PIO Systems Management Division program analyst; Thomas Galloway, chief of PTD's Operations Division; Lisa Newbold, Office of Equal Opportunity student trainee; Tessa Quave, Office of Human Resources and Development student trainee; Sherman Wilson, Center Operations Directorate information security specialist; and David Lorance, aerospace technologist, Safety and Mission Assurance Office.

One NASA brings benefits to astrobionics program

Editor's note: This is one in a series of stories from other NASA centers on the One NASA concept. This month's story is from Ames Research Center, Moffett Field, Calif.

Biological and medical technologies across NASA are stronger now, thanks to a NASA-wide teaming effort called "astrobionics." The program develops new technology and hardware for space- and ground-based research, and provides the latest information about its work across NASA.

Astrobionics supplies biological technology know-how to NASA scientists, engineers and managers. It functions as an integrated program/project team providing a NASA-wide technology capability in support of NASA's Office of Biological and Physical Research.

"Particularly in biological technologies, there are a lot of commonalities that cross many disciplines at many NASA centers," said John Hines, manager of the astrobionics group at NASA Ames Research Center. "Because many groups and areas can use the same technologies, and there are not enough resources to conduct all these activities, this One NASA effort facilitates teaming and leveraging while breaking down historical barriers that blocked collaboration among centers.

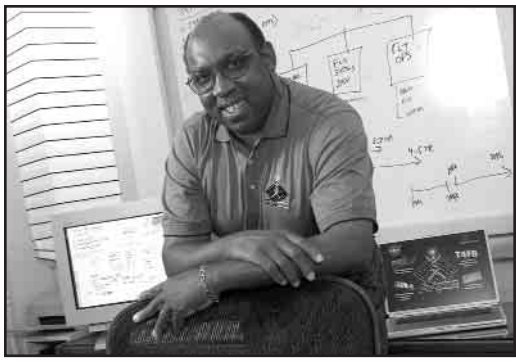
"We've created project teams to identify common technology needs across multiple programs and across multiple NASA centers," Hines said. "The scope of the program includes project management, technology and product definition, technology development and application."

The program includes participants at Ames; Johnson Space Center, Houston; the Jet Propulsion Laboratory (JPL), Pasadena, Calif.; and NASA Headquarters, Washington. In addition, discussions recently began about the future use of the astrobionics effort at Marshall Space Flight Center, Huntsville, Ala.; Glenn Research Center, Cleveland, Ohio; and Kennedy Space Center, Fla.

"A primary example of the One NASA concept within astrobionics is the Biomolecular Systems Research Program (BSRP)," said Hines, who also is BSRP program manager. "BSRP is NASA's lead for research into molecular and nano-scale biological technologies and represents the NASA element of a collaboration between NASA and the National Cancer Institute. The program manager is at Ames. The deputy, Darrell Jan, is at JPL, and the enterprise scientist is at Headquarters.

"BSRP hopes to expand to support research at Johnson, Marshall and Glenn, in addition to Ames and JPL. Products resulting from the BSRP can be used in a variety of biological and medical applications."

More information about the program is on its Web site at *http://astrobionics.arc.nasa.gov/*.



John Hines is manager of the astrobionics group at NASA Ames Research Center.

Star Scene at StenniSphere Visitor Center

Astro Camp sparks imagination at planetarium's silver anniversary

Deontae Butler (third from right) and Shanice Butler (second from right), both of Jackson, learn rocket propulsion basics during the Russell C. Davis Planetarium's 25th anniversary Sept. 27 in Jackson. NASA Stennis Space Center helped the planetarium celebrate with Astro Camp activities, an inflatable Space Shuttle, the astronaut mascot and a display of a scale model of the Space Shuttle. Astro Camp Counselor Shawn Harris (left), Director Maria Lott and Counselor Tammy Estapa help with a propulsion activity.

Grandparents and grandkids launch rockets at Astro Camp Saturday

Joyce Lawrence (left), and her grandson Milan Collins, both of Slidell, La., build a rocket during StenniSphere's first Astro Camp Saturday for grandparents and grandchildren, held Oct. 18. Below, Linda Gruenfeld (left) and her grandson Nicholas Teague, both of New Orleans, assemble their rocket. The campers and their grandparents launched the rockets they built as they learned about rocketry principles and participated in hands-on activities in the camp, themed 'Rocketry 101.'

UPDATE ...
Continued from Page 1

about to open up."

"We've set a window for return to flight," he told employees, "but the schedule is not the important thing. If we don't accomplish the milestones, we'll change the dates."

Parsons echoed Kostelnik's comments. "We have to deal with tough decisions on a daily basis," Parsons said. "These longer-term fixes in the return-to-flight process will have to be implemented continuously."

Kostelnik and Parsons plan quarterly updates to NASA centers on Return to Flight efforts.

Gulf Coast leaders learn about Stennis Space Center

The Mississippi Gulf Coast Chamber of Commerce's Leadership Gulf Coast Class of 2003 visited NASA Stennis Space Center on Oct. 15. The class members, pictured above, enjoyed a site tour and attended a briefing in the StenniSphere auditorium before touring the museum. Leadership Gulf Coast is a program that prepares the area's current and potential leaders for the future.

TIES ...
Continued from Page 1

of Louisiana and SSC. It is the third agreement signed by Louisiana and NASA SSC. The first was in 1989, the second in 1993. Under the 1993 agreement, the state established the Louisiana Technology Transfer Office at SSC, managed by the Louisiana Business and Technology Center, to "foster business relationships between Louisiana industry and federal laboratories by leveraging the research capabilities of those laboratories with the commercial development potential of the private sector."

"This MOU is important because it reinforces the close ties that have always existed between SSC and the state of Louisiana," Rudolphi said. "It says we care about nurturing business relationships with our neighbor state."

The MOU aims to facilitate the transfer and commercialization of NASA technologies into the private sector through licensing opportunities, technology development partnerships and other relationships.

SSC and Louisiana agreed to collaborate by sharing information on NASA-derived technology with the private sector in Louisiana; to jointly support workshops and symposiums to communicate opportunities available for mutual benefit; and to cooperate in identifying opportunities for working relationships involving universities, commercial entities and other institutions.

"We at NASA Stennis Space Center are eager to extend our collaborative relationship with the state of Louisiana," said Robert Bruce, chief for SSC's Technology Development and Transfer Office. "Right now, we are partnered with several Louisiana companies and organizations, working on technologies which range from enabling the mitigation of disasters such as hurricane flooding to providing improved data collection techniques for rocket engine testing. We are committed, not only to continue this kind of meaningful collaboration, but also to pursue ways to effectively expand opportunities for mutual benefit in the future."

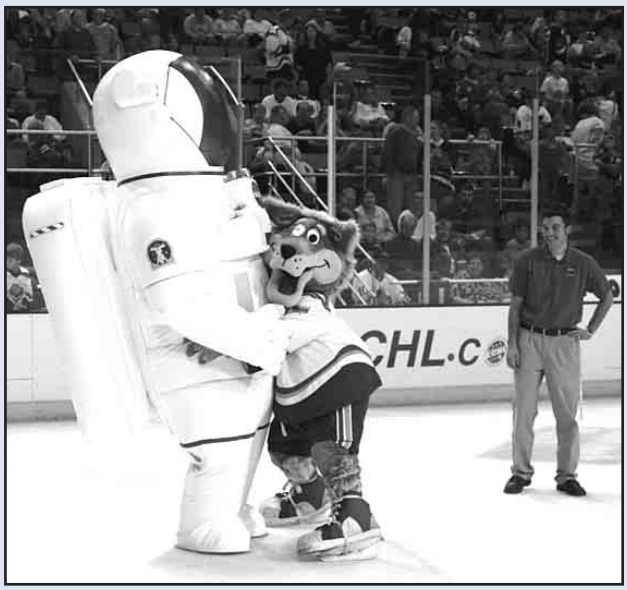
To commemorate the occasion, Rudolphi gave Gov. Foster a satellite image taken from space of the area that comprised the Louisiana Purchase.

SSC manages NASA's Earth Science applications, which use satellite imagery similar to the image presented to Gov. Foster, and other remote sensing capabilities to understand the Earth and the effects of natural and human-induced changes on the global environment.

The Earth Science Applications Directorate at SSC used remote sensing capabilities to help verify the route taken by Meriwether Lewis and William Clark to map the Louisiana Purchase between 1803 and 1806, and to fill important historical gaps in their records.

Rudolphi also presented the governor a flag flown in space aboard the Space Shuttle Columbia during 2002.

Stennis Night at Sea Wolves game



The astronaut mascot for StenniSphere, the visitor center at NASA Stennis Space Center (SSC), and the Mississippi Sea Wolves' mascot, 'Hook,' share a hug on the ice as Visitor Relations Specialist Ryan Dearman watches. The mascots' antics were part of the festivities before the Sea Wolves' game against the Louisiana Ice Gators on Oct. 17. The night was designated Stennis Space Center Night at the Mississippi Gulf Coast Coliseum. Representatives from the visitor center greeted fans, and SSC employees and their families attended. At far left, 'Hook' and Sea Wolves player Staffon Walby visit Stennis before the game.

SAFETY CORNER

Planning ahead is key to a safe Halloween

As October rolls to a close, little ghouls and goblins will soon take to the streets. To make sure their Halloween is filled with more treats than tricks, families should keep these safety tips in mind:

- Wear light-colored clothing or reflective tape to be seen easily.
- Make sure costumes fit well to prevent tripping or other injury.
- Wear face make-up instead of a mask to keep from impeding vision.
- Trick-or-treat in a group with friends. It is more fun, and safer, too.
- An adult should always accompany young children, even in their own neighborhoods.
- Trick-or-treat during daylight, and carry a flashlight in case it gets dark.
- Look both ways before crossing the street, and always use crosswalks where available.
- Trick-or-treat in familiar neighborhoods.
- Only visit homes with the porch light on to welcome you.
- When trick-or-treating with friends, older children should tell Mom and Dad the route they plan to take.
- Do not eat treats until parents have had time to thoroughly examine them at home.
- If any treats look suspicious, parents should call the police.

Halloween doesn't have to be a scary night. Planning and awareness will make sure everyone has a safe and fun-filled time.

QUICKLOOK

Health fair in November. The Annual Health Fair is scheduled from 9 a.m. to 2 p.m. Nov. 19 in front of the cafeteria in Building 1100. For more information, contact Ashley Speed at 688-1271.

Software System Safety classes offered. Stennis' Office of Human Resources will offer a Software System Safety class 8:30 a.m. to 4 p.m. Nov. 4-7 in Room 1 of the Rouchon House. Course topics include an overview of system safety and software development, NASA requirements for software system safety, setting up a software system safety program, implementing a software system safety program, software hazard analysis including the application of Fault Tree and Failure Modes and Effects Analysis to software, software system safety design techniques and software system safety assurance techniques. To register for the class, return an SSC-648 form to the Office of Human Resources. Groups may be submitted on one form. For more information, contact Kay Russell at 688-1633.

Sign up for application software training. The ODIN Alliance will offer software application training classes in November, including Project 2000 Introduction on Nov. 4, Word 2000 Intermediate on Nov. 6, and Outlook 2000 on Nov. 19. All classes are scheduled from 9 a.m. to 4 p.m. For registration information, call 688-2525 opt. 3.

SSC accommodating nursing mothers. A lactation room for nursing mothers is available in Building 1100, Room 303A. For more details, call Ashley Speed at 688-1271.

Wilbur and Orville Wright made their historic first flight Dec. 17, 1903. In support of NASA Quest's Centennial of Flight Project, LAGNIAPPE offers trivia questions about NASA's role in flight each issue during the yearlong celebration.

Q. What was the Gemini Project's purpose?

A. Officially named by NASA on Jan. 3, 1962, Gemini was a plan to extend the piloted spaceflight program by developing a two-person spacecraft. Designed to perfect the techniques needed for a lunar mission, Gemini's was to demonstrate space rendezvous and docking techniques that would be used during the later Apollo flights to the Moon.

LAGNIAPPE

John C. Stennis Space Center,
National Aeronautics and Space Administration
publishes LAGNIAPPE monthly.

Managing Editor . . . . . Paul Foerman
Editor . . . . . .Marty Oramous

Comments or suggestions
should be forwarded to:

LAGNIAPPE Office
Building 1200, Room 208D
Stennis Space Center, MS 39529

or call:
(228) 688-3585

Deadline for content submissions is the 10th of the month or nearest workday.

National Aeronautics and
Space Administration

PRESORTED STANDARD
U.S. POSTAGE
PAID
NEW ORLEANS LA
PERMIT NO. 2877

John C. Stennis Space Center
Stennis Space Center, MS 39529

Official Business
Penalty for Private Use $300